

Title (en)

METHODS AND DEVICES FOR HIGH STABILITY PRECISION VOLTAGE DIVIDERS

Title (de)

VERFAHREN UND VORRICHTUNGEN FÜR PRÄZISIONSSPANNUNGSTEILER MIT HOHER STABILITÄT

Title (fr)

PROCÉDÉS ET DISPOSITIFS DE DIVISEURS DE TENSION DE PRÉCISION À HAUTE STABILITÉ

Publication

EP 3236271 A3 20180314 (EN)

Application

EP 17000330 A 20170302

Priority

US 201662326293 P 20160422

Abstract (en)

[origin: EP3236271A2] Resistor voltage dividers are commonly used to create reference voltages, or to reduce the magnitude of a voltage so it can be measured. Many measurements in test and measurement or calibration applications regularly require accuracies within the sub-part per million (ppm) range, e.g. 0.1 ppm to 1.0ppm. However, the continued drive for improved accuracy in calibration, standards, and measurements on circuits and components means many measurements and measurement systems are operating at 50 parts per billion (ppb) and below to approximately 10ppb. At these levels even relatively simple passive elements such as voltage dividers cannot be used without calibration and that these calibrations may be required at frequencies substantially higher than the other elements within the test and measurement equipment. Accordingly, the inventors have established a self-contained voltage divider with internal calibration allowing the voltage divider to be calibrated for every measurement if necessary.

IPC 8 full level

G01R 15/04 (2006.01); **G01R 35/00** (2006.01)

CPC (source: EP US)

G01R 15/04 (2013.01 - EP US); **G01R 35/005** (2013.01 - EP US); **G01R 35/007** (2013.01 - US)

Citation (search report)

- [A] US 2005248351 A1 20051110 - GRAF HANS-MICHAEL [DE]
- [A] US 9081396 B2 20150714 - SUN BO [US]
- [A] CN 101937066 A 20110105 - JIAJING ZANG

Cited by

CN108802543A

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 3236271 A2 20171025; EP 3236271 A3 20180314; EP 3236271 B1 20230927; CA 2958470 C 20190716; US 10353045 B2 20190716; US 10746837 B2 20200818; US 2017307718 A1 20171026; US 2019293742 A1 20190926

DOCDB simple family (application)

EP 17000330 A 20170302; CA 2958470 A 20170221; US 201715458241 A 20170314; US 201916426900 A 20190530